



***EMISSION*SOLUTIONSINC**



EMISSIONSOLUTIONSINC
Tomorrow's Technology Today.

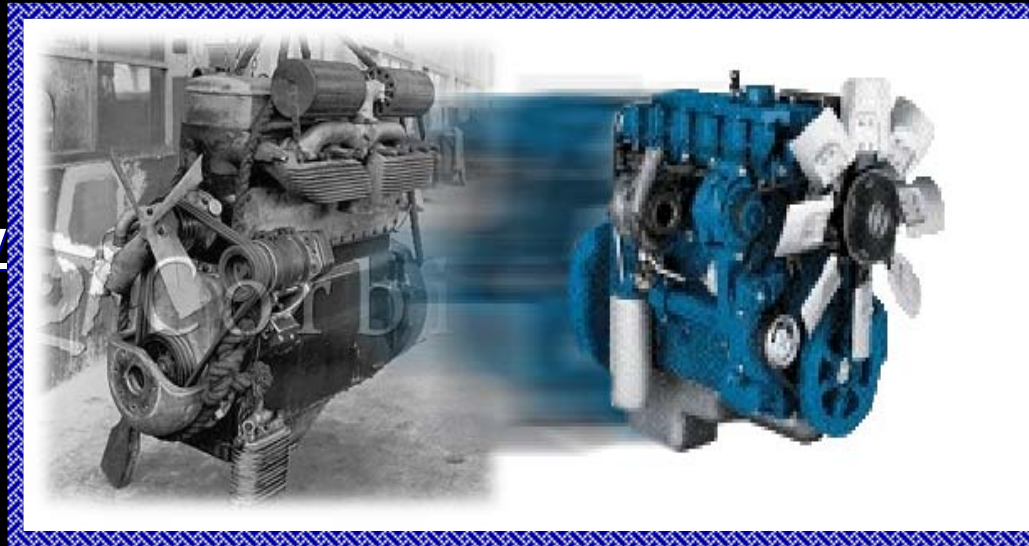




EMISSIONSOLUTIONSINC
Tomorrow's Technology Today.

ESI Phoenix NG 7.6L Heavy Duty Natural Gas Engine

- Replacement benefits
 - Improved performance
 - Proven platform reliability
 - Innovative patented technology
 - Environmentally friendly





EMISSIONSOLUTIONSINC
Tomorrow's Technology Today.





EMISSIONSOLUTIONSINC
Tomorrow's Technology Today.





EMISSIONSOLUTIONSINC
Tomorrow's Technology Today.





EMISSIONSOLUTIONSINC
Tomorrow's Technology Today.





EMISSIONSOLUTIONSINC
Tomorrow's Technology Today.





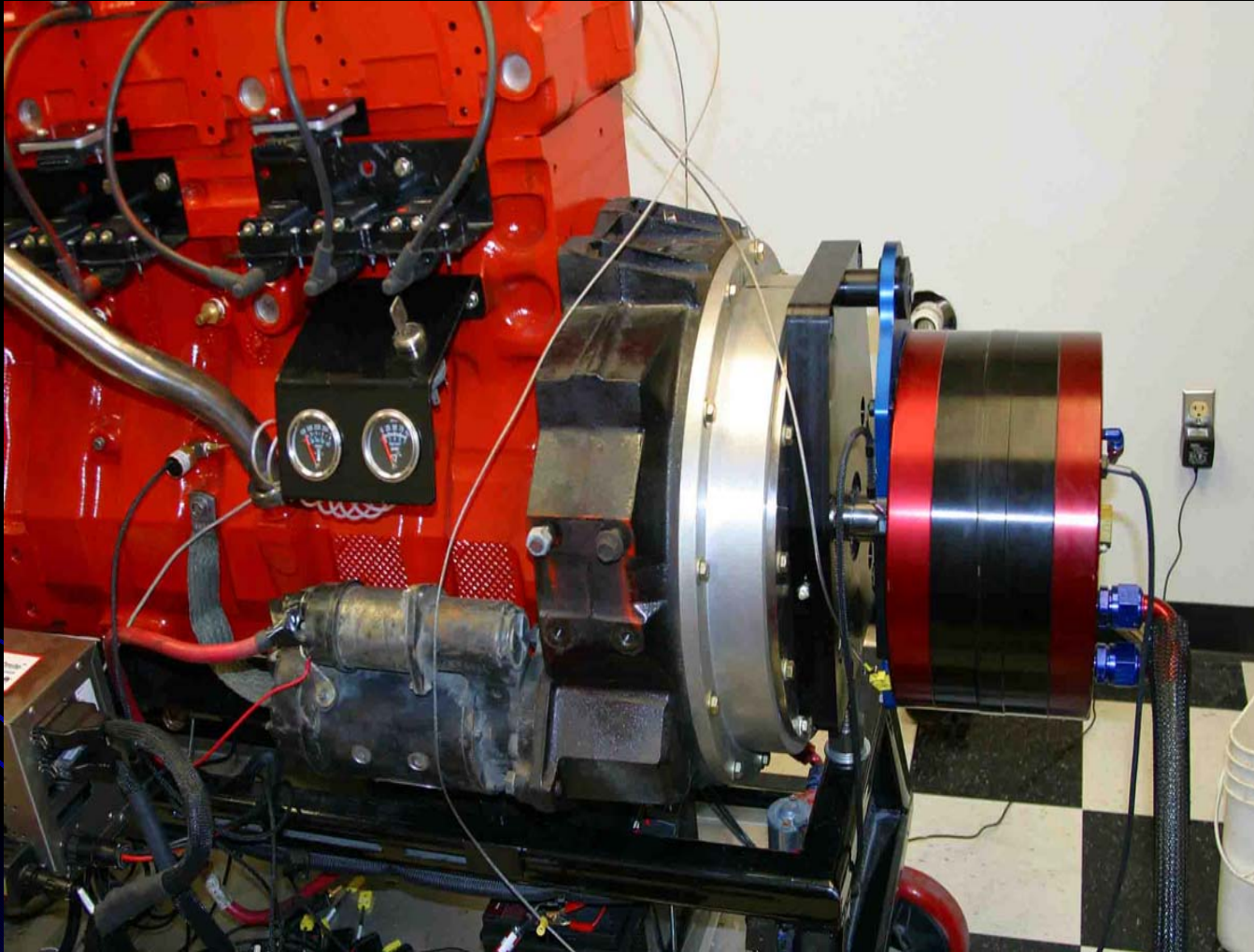
EMISSIONSOLUTIONSINC
Tomorrow's Technology Today.



28 11:20AM



EMISSIONSOLUTIONSINC
Tomorrow's Technology Today.





EMISSIONSOLUTIONSINC
Tomorrow's Technology Today.





EMISSIONSOLUTIONSINC
Tomorrow's Technology Today.

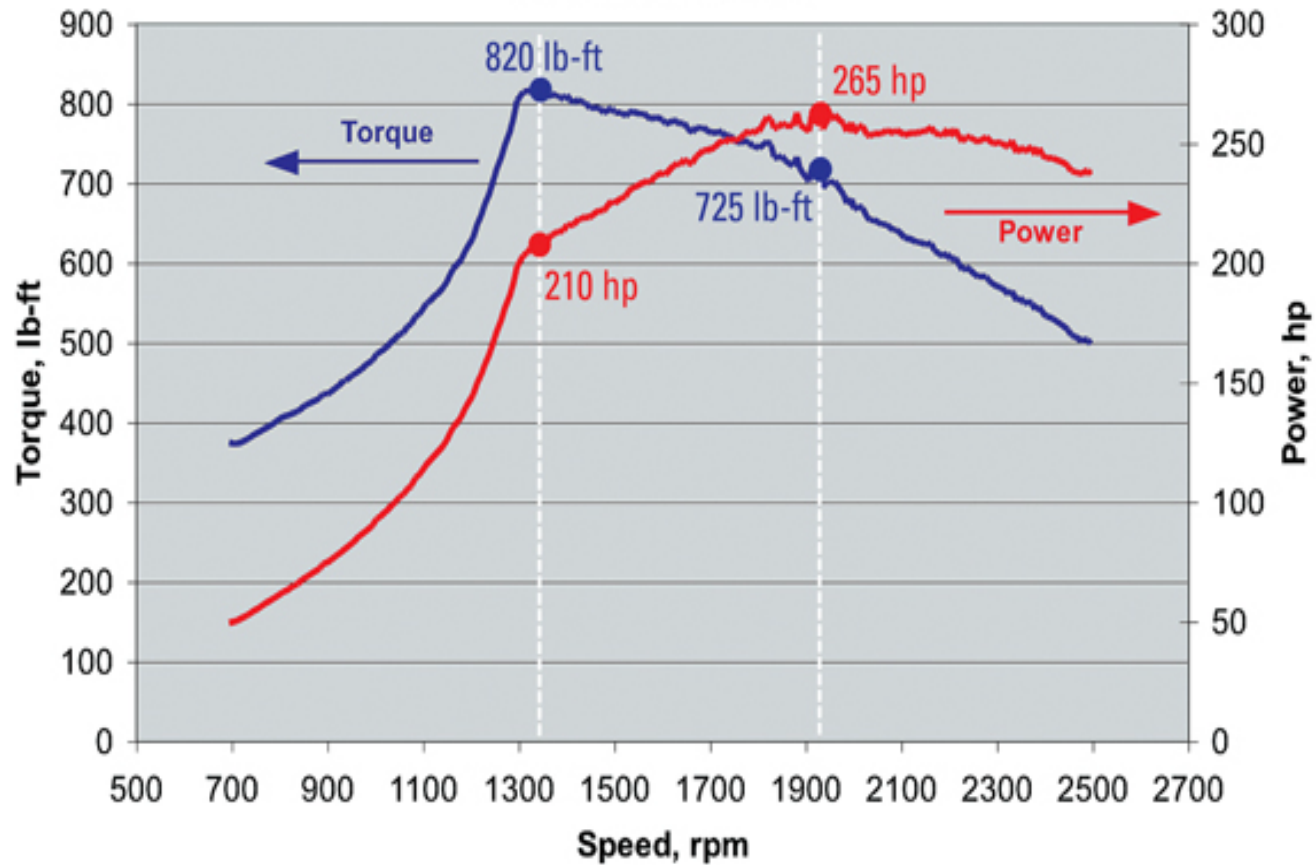




EMISSIONSOLUTIONSINC
Tomorrow's Technology Today.

PHOENIX 7.6 NG HDE PERFORMANCE

265 HP (198 KW)



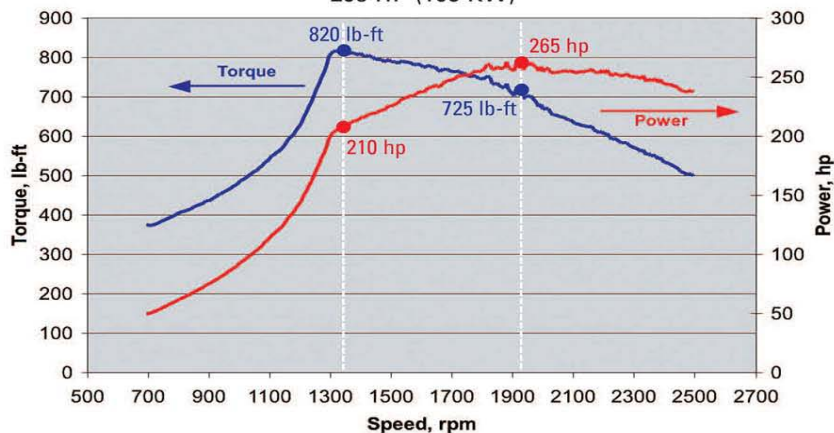


EMISSIONSOLUTIONSINC

Evolving Diesel to Clean Gaseous Fuels

PHOENIX 7.6 NG HDE PERFORMANCE

265 HP (198 KW)



PHOENIX 7.6 NG HDE NATURAL GAS ENGINE

- Meets/Exceeds 2007 Emission Requirements Today!
- Durable Proven OEM Platform
- Innovative Engine Control Management System
 - Real Time Emission Monitoring
 - On-Demand Peak Performance
 - Adaptive Learn
 - Power & Torque Mapped to Customer Demands
- Clean Combustion Extends Service Intervals, Lowers Maintenance
- Familiar Platform - No Major Tooling or Training Required
- ESI Program Is A Simple Engine Exchange
- Natural Gas - The Clean Abundant Domestic Fuel

www.emissionsolutionsinc.com

2001 Central Circle, Suite 106, McKinney, Texas 75069

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: The engine and emission control systems produced by the manufacturer are certified as described below for use in on-road motor vehicles with a manufacturer's GVWR over 14,000 pounds. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	ENGINE SIZES (L)	FUEL TYPE ¹	STANDARDS & TEST PROCEDURE	INTENDED SERVICE CLASS ²	ECS & SPECIAL FEATURES ³
2006	6EMSH07.6NG1	7.6	CNG	Diesel	MHDD	TBI, CAC, TC, WU-TWC, TWC, O2S, HO2S
ENGINE (L)						
ENGINE MODELS / CODES (rated power, in hp)						
7.6	ESI7.6l / ESI0001 (254)					
-						
-						
-						
-						

¹ =not applicable; GVWR=gross vehicle weight rating; 13 CCR xyz=Title 13, California Code of Regulations, Section xyz; 40 CFR 88.abc=Title 40, Code of Federal Regulations, Section 88.abc;
² =liter; hp=horsepower; kw=kilowatt;
³ CNG/LNG=compressed/natural gas; LPG=liquefied petroleum gas; E85=85% ethanol fuel; MF=multi fuel s.k.a. BF=bi fuel; DF=dual fuel; FF=flexible fuel;
 L/M/H H/D=light/medium/heavy heavy-duty diesel; UB=urban bus; HDO=heavy duty Otto;
 ECS=emission control system; TWC/OC=three-way/oxidizing catalyst; WU (prefix)=warm-up catalyst; DPF=diesel particulate filter; HO2S/O2S=heated/oxygen sensor; HAFS/AFS=heated/air-fuel ratio sensor (s.k.a. universal or linear oxygen sensor); TBI=throttle body fuel injection; SF/MFI=sequential/multi port fuel injection; DGI=direct gasoline injection; GCARB=gaseous carburetor; ID/DDI=indirect/direct diesel injection; TC/SC=turbo/super charger; CAC=charge air cooler; EGR=exhaust gas recirculation; PAIR/AIR=pulsed/secondary air injection; SPL=smoke puff limiter; ECM/PCM=engine/powertrain control module; EM=engine modification; 2 (prefix)=parallel; (2) (suffix)=in series; (2004may26)

Following are: 1) the FTP exhaust emission standards, or family emission limit(s) as applicable, under 13 CCR 1956.1 (urban bus) or 13 CCR 1956.8 (other than urban bus); 2) the EURO and NTE limits under the applicable California exhaust emission standards and test procedures for heavy-duty diesel engines and vehicles (Test Procedures); and 3) the corresponding certification levels, in g/bhp-hr, for this engine family. "Diesel" CO, EURO and NTE certification compliance may have been demonstrated by the manufacturer as provided under the applicable Test Procedures in lieu of testing. (For flexible- and dual-fueled engines, the CERT values in brackets [] are those when tested on conventional test fuel. For multi-fueled engines, the STD and CERT values for default operation permitted in 13 CCR 1956.1 or 13 CCR 1956.8 are in parentheses.)

	NMHC		NOx		NMHC+NOx		CO		PM		HCHO	
	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO
STD	-	-	-	-	-	-	15.5	-	-	-	-	-
FEL	-	-	-	-	0.8	-	-	-	0.01	-	-	-
CERT	-	-	-	-	0.8	-	3.9	-	0.01	-	-	-
NTE	-	-	-	-	-	-	-	-	-	-	-	-

⁴ g/bhp-hr=grams per brake horsepower-hour; FTP=Federal Test Procedure; EURO=Euro III European Steady-State Cycle; NTE=Not-to-Exceed; STD=standard or emission test cap; FEL=family emission limit; CERT=certification level; NMHC/HC=non-methane/hydrocarbon; NOx=oxides of nitrogen; CO=carbon monoxide; PM=particulate matter; HCHO=formaldehyde;

BE IT FURTHER RESOLVED: Certification to the FEL(s) listed above, as applicable, is subject to the following terms, limitations and conditions. The FEL(s) is the emission level declared by the manufacturer and serves in lieu of an emission standard for certification purposes in any averaging, banking, or trading (ABT) programs. It will be used for determining compliance of any engine in this family and compliance with such ABT programs.

BE IT FURTHER RESOLVED: For the listed engine models the manufacturer has submitted the materials to demonstrate certification compliance with 13 CCR 1965 (emission control labels) and 13 CCR 2035 et seq. (emission control warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

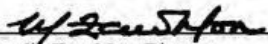
Executed at El Monte, California on this 19th day of January 2006.


Allen Lyons, Chief
Mobile Source Operations Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

2006 Model Year Certificate of Conformity

Manufacturer:	EMISSION SOLUTIONS, INC		
Engine Family:	6EMSH07.6NG1		
Certificate Number:	EMS-MHDD-06-01		
Intended Service Class:	MHDD		
Fuel Type:	NATURAL GAS		
FELs:	g/bHP-hr	NMHC+NOx: 0.8	NOx: N/A PM: .01
Effective Date:	10/25/2005		
Date Issued:	OCT 28 2005		


Merrylin Zaw-Mon, Director
Certification and Compliance Division
Office of Transportation and Air Quality

Pursuant to Section 206 of the Clean Air Act (42 U.S.C. section 7525), 40 CFR Part 86, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which represent the following motor vehicle engines, by engine family, and is subject to the terms and conditions prescribed in those provisions.

This certificate of conformity covers only those new motor vehicle engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Part 86 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 86.

This certificate of conformity is conditional upon compliance of said manufacturer with the averaging, banking and trading provisions of 40 CFR Part 86, Subpart C. Failure to comply with these provisions may render this certificate void ab initio.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 86.096-7, 86.606, and 86.1006 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR Part 86. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void ab initio for other reasons specified in 40 CFR Part 86.

This certificate does not cover engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.



EMISSIONSOLUTIONSINC
Tomorrow's Technology Today.

“Replacing Older Diesel Engines with Clean Gaseous Fueled Engines”

265hp(198kw)

Phoenix NG 7.6L

Product Specification

Durability through innovative design

General Data

Ratings:	175-265 hp
(hp/torque mapped to meet critical payloads)	460-820 lb-ft
Combustion System	Dedicated Spark-Ignited
After Cooler	Air to Air
Engine Type	Four cycle, In-Line Six
Aspiration	Turbocharged
Compression Ratio	10.5:1 Fumigation
Displacement	7.6 Liters

Features and Benefits

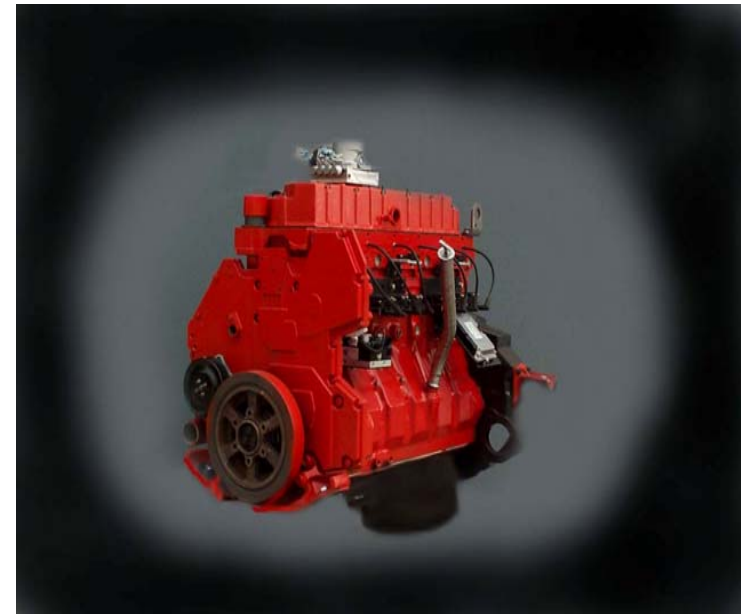
Delivers up to 265 hp with superior torque rise (up to 820 lb-ft), for quicker response, improved acceleration and pulling power. Designed with Wet-Type cylinder liners and cryogenically hardened combustion components for improved heat dissipation and heat resistance to extend product and emission life cycle. Two Year parts & labor warranty (unlimited miles).

Fuel System

- Stoichiometric, Closed loop Adaptive Learn Technology
- Computerized control management for on-demand peak performance and emission control
- Adaptive Fuel Types: CNG, LNG, Propane
- SwRI test results (g/bhp-hr): NOx 0.513, NMHC 0.059, PM 0.009
- **CARB Executive Order & EPA Certification (g/bhp-hr): NOx+NMHC = 0.8, PM = 0.01**

Specifications and design subject to change without notice

Emission Solutions, Inc 2001 Central Circle, Suite 106, McKinney, TX 75069, Phone 972.369.0099
www.emissionsolutionsinc.com info@emissionsolutionsinc.com



Patent No.: US 6,910,269



EMISSIONSOLUTIONSINC
Tomorrow's Technology Today.





EMISSIONSOLUTIONSINC
Tomorrow's Technology Today.



“Like one swish of a painter’s brush; we can blue up our skies by replacing one engine at a time”